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**O'Hare et al.**(10) **Pub. No.: US 2015/0295908 A1**(43) **Pub. Date: Oct. 15, 2015**(54) **SYSTEMS AND METHODS FOR SECURING  
DATA USING MULTI-FACTOR OR KEYED  
DISPERSAL****Publication Classification**(51) **Int. Cl.**  
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TX (US); **Mihir Bellare**, San Diego, CA  
(US); **Phillip Rogaway**, Davis, CA (US)(21) Appl. No.: **14/750,562**(22) Filed: **Jun. 25, 2015****Related U.S. Application Data**(63) Continuation of application No. 13/903,444, filed on  
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7, 2008.(57) **ABSTRACT**

A secure data parser is provided that may be integrated into any suitable system for securely storing and communicating data. The secure data parser parses data and then splits the data into multiple portions that are stored or communicated distinctly. Encryption of the original data, the portions of data, or both may be employed for additional security. The secure data parser may be used to protect data in motion by splitting original data into portions of data, that may be communicated using multiple communications paths. A keyed information dispersal algorithm (keyed IDA) may also be used. The key for the keyed IDA may additionally be protected by an external workgroup key, resulting in a multi-factor secret sharing scheme.

